

REMARKS/ARGUMENTS

Claims 1-35 are pending in this application. Claim 18 has been amended.

The Examiner rejects claims 1-35 under 35 U.S.C. 103(a) as being unpatentable over Gadkaree ('026) in view of Claussen ('259). The Examiner also rejects claims 1-4, 6-9, 10-15, 17-22, 23-27, 29, 30, and 32-35 under 35 U.S.C. 103(a) as being unpatentable over Gadkaree ('026) in view of Claussen ('259). Applicant respectfully traverses these rejections.

In response to the applicant's arguments filed August 25, 2003, the Examiner states that Gadkaree explicitly teaches forming a honeycomb filter from a mixture of cordierite and silicon carbide or silicon nitride in column 3, lines 31-39. That, although Gadkaree does not teach a specific method used to make a cordierite-silicon carbide/silicon nitride filter, one of ordinary skill in the art would have recognized from the disclosure that cordierite and silicon carbide or silicon nitride could be mixed in any proportion. Applicant respectfully submits that although this may in fact be true, by providing cordierite, and mixtures of cordierite and/or silicon carbide/silicon nitride in the same list Gadkaree teaches that such materials are equally suitable as porous filter materials. Stated differently, Gadkaree discloses that a cordierite-silicon carbide/silicon nitride filter has the same advantages as a cordierite filter. This clearly teaches away from and does not recognize what the present invention discloses, particularly that a composite cordierite filter offers a reduction in peak filter temperatures encountered by diesel particulate filters during regeneration, thereby making the filters less susceptible to catastrophic failure.

The Examiner further states that the Claussen disclosure is not limited to multiphase cordierite ceramic comprising at least two additive phases. Applicant respectfully submits that regardless, the combination of Claussen and Gadkaree does not teach or suggest the present invention. First, since Gadkaree as the primary reference teaches away from the present invention, a combination with Claussen does not cure this deficiency. Second, even if Gadkaree did not teach away, combining Claussen with Gadkaree could render the invention of Gadkaree inoperable, for the following reasons. Claussen teaches making a cordierite containing ceramic molding. However, it offers no guidance towards obtaining a cordierite composite ceramic having microstructure (i.e., porosity, median pore size, etc.) and mechanical properties which would be suitable for filtration applications. The material of Claussen is a sintered material with a small particle size and high strength, column 2, lines 30-33. High residual porosity is not preferred in the Claussen material, column 3, lines 14-15. Therefore, by substituting the ceramic of Claussen into the structure of Gadkaree, the proposed combination could render the filter of Gadkaree inoperable. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)." MPEP 2143.01

The Examiner states that Cleveland does teach the weight percentages of cordierite and silicon nitride required for the present invention. However, as with Claussen, the combination of Gadkaree and Cleveland does not cure the deficiency that Gadkaree teaches away from the present invention. Cleveland also teaches a dense, strong cordierite-silicon

nitride material (column 3, lines 12-15) that could render Gadkaree inoperable since Gadkaree requires a porous ceramic support suitable for filtration.

Therefore, applicant respectfully submit that the combinations of Gadkaree and Claussen, and Gadkaree and Cleveland do not render the present invention obvious under 35 U.S.C 103(a). Therefore, a prima facie case of obviousness has not been established. Accordingly, applicant respectfully requests reconsideration of the rejections and favorable action.

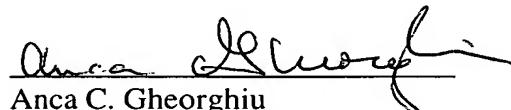
The Examiner rejects claim 28 under 35 U.S.C. 103(a) as being unpatentable over Gadkaree ('026) in view of Cleveland ('215) and further in view of Talmy ('534). For reasons stated above neither Gadkaree nor Cleveland nor the combination therefore teach the invention of claim 23 from which claim 28 depends. The further combination of Talmy with these references does not cure this deficiency. These three cited references neither teach or disclose a diesel particulate filter which the present invention embodied in claim 28 requires. Therefore, a prima facie case of obviousness has not been established. Accordingly, applicants request reconsideration of the rejection of claim 28 under 35 U.S.C. 103(a) over Gadkaree ('026) in view of Cleveland ('215) and further in view of Talmy ('534).

Based upon the above amendments, remarks, and papers of records, applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Applicant believes that no extension of time is necessary to make this Reply timely. Should applicant be in error, applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Anca C. Gheorghiu at (607) 974-3322.

Respectfully submitted,



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DATE: November 26, 2003